



United States
Department of
Agriculture

Soil
Conservation
Service

28080 Chardon Road, Wickliffe, Ohio 44092

December 17, 1982

U.S. Army Corps of Engineers
District Engineer
Buffalo District
1776 Niagara Street
Buffalo, New York 14207

Dear Sir:

Enclosed is an Inventory & Evaluation prepared for the
Corps of Engineers on property located on Engle Road.
If you have any questions, please feel free to contact
the office and we will be happy to assist you.

Sincerely,

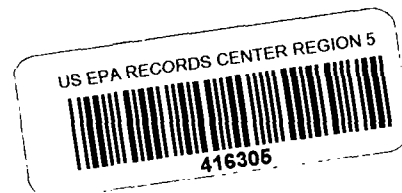
Thomas D. Anderson
Thomas D. Anderson
District Conservationist

TDA:ds

Enclosures

cc Mr. Frank J. J. St.Elmo
Corps of Engineers

City of Middleburg Heights
Building Dept.
15900 Bagley Road
Middleburg Heights, Ohio 44130



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The Soil Conservation Service
is an agency of the
Department of Agriculture

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INVENTORY & EVALUATION

PREPARED FOR

U.S. ARMY CORPS OF ENGINEERS
Mr. Frank J. J. St. Elmo

Prepared by:
Thomas D. Anderson
District Conservationist
Soil Conservation Service
28080 Chardon Road
Wickliffe, Ohio 44092

INVENTORY & EVALUATION

Requested by:

U.S. Army Corps of Engineers
District Engineer
Buffalo District
1776 Niagara Street
Buffalo, New York 14207

Assisted by:

Mr. Thomas D. Anderson
District Conservationist

USDA - Soil Conservation Service

In cooperation with:
Cuyahoga Soil & Water Cons. District
28080 Chardon Road
Wickliffe, Ohio 44092

Date:

December 16, 1982

SITUATION:

A request was received by the Cuyahoga Soil & Water Conservation District to review a proposed fill project on the west side of Engle Road, approximately 3/4 mile south of Bagley Road. At the present time, some fill operations have already taken place. This operation exists in the eastern side of the property.

The land is privately owned and plans for a future development was viewed during this contact.

A water course runs through the property entering the property under Engle Road at the southeast corner and flowing to the north, leaving the property approximately 500 feet west of the northeast corner. This water course has been changed to allow additional fill that has been dumped on the east side of the property. The water course was dug deeper without side slopes and moved to the west from its original channel.

This water course drains approximately 400 acres (+ or -) of an area that extends east of Engle Road and to the northeast of Interstate 71. The predominant drainage area is an urban setting with most of the acreage already developed. This watershed eventually feeds Lake Abram and the marsh around Lake Abram, which is north of Bagley Road.

During the field contact a proposed subdivision was seen. This was provided by the present land owner. This proposed subdivision showed proposed building sites at different elevations throughout the whole property. This would mean that the water course and other tributaries would have to be storm drained. With the exception of a general development map, no details of drainage, erosion control, etc. was provided during this field visit.

The soils in this area are predominantly Cg, Carlisle silty clay loam, and Sb, Sebring silt loam. A detailed soil description of these soils is attached. Also attached is a copy of Map #46 of the Soil Survey of Cuyahoga County.

The area where the Carlisle silt loam exists is the type of area that would be considered to be in the wetland category. The Sebring soil is wet but would not fall into the wetland category. The vegetation in the area of both of these soils is weedy, grassy and brushy with small clumps of high vegetation.

The reason for the request to the Cuyahoga Soil & Water Conservation District was for consideration of possible silt damages downstream if this area was to be filled and used for building.

COMMENTS:

During this visit to the site, representatives of the City of Middleburg Heights, Mr. Frank J. J. St. Elmo and the property owner were present. Not enough information was obtained to be absolutely sure that no damage downstream would occur from this proposed development.

The complete area is to be filled and unless definite precautions are made for sediment control, damages downstream could be sufficient to reduce greatly the acreage that is considered as a wetland marsh. Also, the possibility of completely changing Lake Abram to marshy conditions would exist.

A proposed development also establishes fill on wetland area on the west side of the property. With the exception of decreasing the amount of wetland area, I see no reason that this area could not be filled if proper precautionary measures are taken to control sediment during all stages of the fill and after development.

No designed drains or consideration to sizing of storm drains were seen which could affect upstream and downstream property owners. The importance of providing adequate size and design of the water flowing through and from the property can not be understated. If careful consideration is not given to this, damages upstream and downstream could occur from this proposed development.

At present, conditions exist where very little precaution is taken to protect downstream areas from sediment damage. At present, fill is being dumped. The back slope of this fill area is extremely steep and debris and soil is already moving downstream. Downstream landowners are being damaged and wetlands are being affected by poor management at the present site. Control of sediment and debris is fundamental in protecting the area below this property.

A previous report about this location was provided to the land owner and to the City of Middleburg Heights.

SOIL DESCRIPTION

Sb - Sebring silt loam

The Sebring series consists of moderately deep to deep, poorly drained soils on stream terraces and outwash plains. These soils formed in silt and clay deposited in slack water and occupy nearly level areas along major streams in the county. Individual areas of this unit are irregular in shape and range from 5 to 20 acres in size.

Typically, the surface layer is dark grayish brown silt loam about 9 inches thick with yellowish red mottles. The sub-surface layer, extending to a depth of about 13 inches, is gray silt loam mottled with strong brown. The subsoil extends to a depth of about 37 inches. In sequence from the top of the subsoil, the upper 4 inches is light brownish gray silt loam mottled with strong brown; the next 11 inches is grayish brown silty clay loam mottled with strong brown; the lower 9 inches is gray silty clay loam mottled with strong brown. The underlying material extending to a depth of about 93 inches, is gray, stratified silty clay loam, silty clay, and silt loam.

Included with this soil in mapping, are depressed areas of soils that have a silty clay loam surface layer; they are slightly more sticky. There are slightly higher areas that are inclusions of the somewhat poorly drained Fitchville soils. The more clayey Canadice is a common inclusion of this unit.

Sebring soils have a moderately deep to deep rooting zone. Permeability is moderately slow in the subsoil and slow in the underlying material. The moisture supplying capacity is medium and runoff is slow. Sebring soils have a seasonal high water table, and they are subject to ponding.

SOIL DESCRIPTION

Cg - Carlisle silty clay loam, overwashed (0 to 2 percent slopes)

This mapping unit consists of deep very poorly drained organic soils in old small glacial lakes. They are formed in partially decomposed sedges, reeds, fibrous grasses and trees. Individual areas are Kettle shaped and range from 10 to 60 acres in size.

In a representative profile the surface layer is dark grayish-brown to dark gray silty clay loam about 10 inches thick, from overwash of material from the surrounding area. The subhorizons are dark brown, olive, dark reddish-brown, sapric muck to a depth of 86 inches or more.

In mapping there are small areas where the thickness of the overwash is absent, while in other areas it is as thick as 18 inches. Surrounding the edges of this unit, the clayey poorly drained Canadice soils are a common inclusion.

The Carlisle soils are normally saturated with water the year round. When drained, they have a deep rooting zone which generally coincides with the depth to water. Permeability is rapid. It has a high rating for available moisture. The run-off is slow and becomes ponded.